



Indiana Department of Environmental Management

2002 Annual Compliance Report

for Indiana Public Water Supply Systems

IDEM Drinking Water Branch

June 2003

Introduction

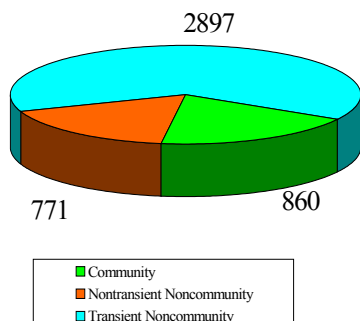
The 1996 Amendments to the Safe Drinking Water Act require each state to prepare an annual report of violations of the national primary drinking water regulations for public water supplies. The annual reports are intended to provide a summary of violations of maximum contaminant levels (MCL's), treatment techniques, variances and exemptions¹, and monitoring and reporting violations (M&R). This report includes information for the time period January 1, 2002 through December 31, 2002.

Public Water Supply Information

There are approximately 4,468 active public water supplies in Indiana. Graph 1 shows the distribution of public water systems by the system type. Drinking water in Indiana comes from ground water sources via wells or surface water systems such as lakes and rivers. Some public water systems purchase water from other public water supplies and distribute the water to their customers. Ninety-seven percent (97%) of all public water systems are served by ground water systems. However, only fifty-five percent (55%) of the total population is served by systems utilizing ground water.

Drinking Water Monitoring Requirements

Graph 1. Number and Type of Public Water Systems in Indiana



¹ IDEM did not issue any variances or exemptions in 2002, therefore there are no violations for variances and exemptions to address in this summary report.

The Safe Drinking Water Act and the Indiana Public Water Supply Supervision Program mandate the monitoring and reporting of various bacteriological and chemical contaminants that may be found in drinking water. The contaminants are categorized as total coliform, nitrate (NO₃), inorganic chemicals (IOCs), volatile organic compounds (VOCs), synthetic organic compounds (SOCs), radionuclides (Rads), lead and copper (Pb/Cu), and total trihalomethanes (TTHMs). The levels of these contaminants in drinking water are compared to maximum contaminant levels (MCLs) which are set by the Environmental Protection Agency (EPA) and the State, to ensure that water is safe for human consumption. See Table 2 on the back page for a list of MCLs and action levels for all of the regulated contaminants.

Surface water systems are also required to comply with the provisions of the Surface Water Treatment Rule (SWTR). This rule establishes regulations pertaining to treatment techniques that require systems to properly treat their water. If a PWS fails to properly treat its water or cannot control the levels of such contaminants as turbidity, bacteria, viruses, or parasitic microorganisms the system has violated the provisions of the Safe Drinking Water Act and is assigned a Treatment technique (TT) violation.

Violation Summary

Table 1 provides a summary of the number of MCL, M&R, and TT violations for all of the regulated drinking water contaminants for the 2002 calendar year (January 1, 2002-December 31, 2002). The table also provides a summary of the number of systems in violation for each contaminant group.

An evaluation of the 2002 Annual Compliance Report (ACR) as compared to 2001 ACR showed an improvement in the compliance rates for MCL, M&R, and TT violations. The total number of violations has decreased by fifteen percent (15%) while the total number of systems in violation has decreased by almost ten percent (10%). This improvement in the compliance rate was attributed to the implementation of the small system laboratory assistance program (SSLAP) instituted in July 2002. The SSLAP provides sampling assistance to systems serving population less than 100 people for coliform bacteria and nitrate contaminants.

Table 1. 2002 Violations Summary for Indiana Public Water Supplies

		MCL		Treatment Technique		Monitoring & Reporting		Consumer Confidence	
		Violations	Systems In Violation	Violations	Systems in Violation	Violations	Systems In Violation	Violations	Systems in violation
CCR	CWS							169	116
Pb/Cu	CWS			8	8	115	65		
	NTNC			15	14	105	79		
SWTR	CWS			21	6	3	2		
	NTNC			2	2	0	0		
	TNC			1	1	0	0		
VOC	CWS	2	2			401	17		
	NTNC	1	1			1134	37		
IOC	CWS	27	5			1071	90		
	NTNC	2	2			859	92		
	TNC	2	2			341	326		
SOC	CWS	1	1			133	11		
	NTNC	0	0			508	19		
TCR	CWS	51	46			260	147		
	NTNC	45	40			215	156		
	TNC	183	167			1637	1137		
Rads	CWS	2	1			0	0		
DBP	CWS	0	0			2	2		
Totals	CWS	81	55	29	14	1985	334	169	116
	NTNC	48	43	17	16	2821	383	0	0
	TNC	185	169	1	1	1978	1463	0	0

Total Number of Systems in Violation*	CWS	333
	NTNC	311
	TNC	1339
	Total	1983

Total Number Of Violations	CWS	2264
	NTNC	2886
	TNC	2164
	Total	7312

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MCL =Maximum Contaminant Level Violation	SWTR =Surface Water Treatment Rule	VOC =Volatile Organic Compounds (21 Chemicals)	NO3 =Nitrate
Pb/Cu =Lead and Copper	SOC =Synthetic Organic Compounds (27-30 Chemicals)	TNC =Transient Noncommunity	Rads =Radionuclides
IOC =Inorganic Chemicals (10-12 Chemicals)	TTHM =Total Trihalomethanes	CWS =Community Water System	
TCR =Total Coliform Rule	NTNC =Nontransient Noncommunity Water System	CCR =Consumer Confidence Report	

*This number represents the total number of systems in violations for 2002. However, this number includes some systems with multiple violations across contaminant groups.

A further evaluation of the 2002 ACR data showed that approximately forty four percent (42%) of the total number of active water systems have monitoring and reporting violations for at least one contaminant . However, the majority of these systems (approximately 68%) are transient public water systems. The percentage of systems with maximum contaminant level violations was approximately six percent (6%).

Consumer Confidence Reports

All community public water systems are required to develop and distribute to their customers a brief annual water quality report, called a consumer confidence report (CCR). The community water system is required to deliver a copy of the CCR to its consumers by July 1st. The purpose of the report is to inform and educate customers on the status and quality of their public water supply. The report contains information on the sources of drinking water, the levels of any detected contaminants, and educational information regarding drinking water.

Compliance Assistance Efforts

The Drinking Water Branch currently assists public water supply owners and operators to promote compliance with the drinking water regulations. Assistance is provided through site visits, correspondence, telephone contact, educational presentations and materials, and, the small system laboratory assistance program. The following is a summary of the number of site visits that were conducted in 2002 by the Drinking Water Branch staff:

Sanitary Surveys	877
Well Site Surveys	107
Technical Assistance Visits	492
MCL Follow-Up Visits	174

The focus of the compliance assistance efforts has been primarily directed to community and nontransient noncommunity public water systems. In 2003, The State will be utilizing additional funds available from the federal government to provide technical assistance for small public water systems. A contractor will be used to provide additional education, guidance and on-site assistance to small systems to help ensure water is safe, improve compliance and promote a better understanding of the drinking water regulations.

For More Information

If you have any questions concerning this report or would like the lists of public water supplies that have had violations in 2001, please contact the Drinking Water Branch at (317) 308-3280. Additional copies of this report are available on the Indiana Department of Environmental Management, Office of Water Management, Drinking Water Branch web-site at <http://www.state.in.us/idem/own/dwb/compliance.html> or by contacting the Drinking Water Branch at (317) 308-3280.

Additional information regarding the quality of your drinking water may be obtained by contacting your local public water supplier. Please contact your local public water supply for a copy of the latest consumer confidence report (CCR) for your public water system.

For more information regarding all aspects of the environment in Indiana, IDEM publishes an annual State of the Environment Report. Copies of the report are available via the internet at <http://www.state.in.us/idem/soe/index.html>, or by calling (800) 451-6027 ext. 3-1044. Also, for general information regarding drinking water you may contact the EPA Safe Drinking Water Hotline by calling (800) 426-4791.

TABLE 2
REGULATED CHEMICAL DRINKING WATER CONTAMINANTS
MAXIMUM CONTAMINANT LEVELS

Contaminant	MCL	Contaminant	MCL	Contaminant	MCL
Inorganic Chemicals (IOCs)	mg/l	Volatile Organic Compounds (VOCs)	ug/l	Synthetic Organic Compounds (SOCs)	ug/l
Antimony	0.006	1,1-Dichloroethylene	7	2,4-D	70
Arsenic	0.05	1,1,1-Trichloroethane	200	2,4,5-TP (Silvex)	50
Barium	2	1,1,2-Trichloroethane	5	Alachlor	2
Beryllium	0.004	1,2-Dichloroethane	5	Atrazine	3
Cadmium	0.005	1,2-Dichloropropane	5	Benzo(a)pyrene	0.2
Chromium	0.1	1,2,4-Trichlorobenzene	70	Carbofuran	40
Cyanide (free)	0.2	Benzene	5	Chlordane	2
Fluoride (Adjusted) *	2	Carbon Tetrachloride	5	Dalapon	200
Fluoride (Natural) *	4	Cis-1,2-Dichloroethylene	70	Di(2-ethylhexyl)adipate	400
Mercury	0.002	Dichloromethane	5	Di(2-ethylhexyl)phthalate	6
Nickel	---	Ethylbenzene	700	Dibromochloropropane (DBCP)	0.2
Selenium	0.05	Monochlorobenzene	100	Dinoseb	7
Thallium	0.002	o-Dichlorobenzene	600	Dioxin (2,3,7,8-TCDD)	3X10 ⁻⁵
Nitrate	10	p-Dichlorobenzene	75	Diquat	20
Nitrite	1	Styrene	100	Endothall	100
Total Nitrate & Nitrite	10	Tetrachloroethylene	5	Endrin	2
		Toluene	1000	Ethylene Dibromide (EDB)	0.05
Sodium *	No MCL	Trans-1,2-Dichloroethylene	100	Glyphosate	700
		Trichloroethylene	5	Heptachlor	0.4
Asbestos		Vinyl Chloride	2	Heptachlor epoxide	0.2
Asbestos	7 MFL**	Xylenes (total)	10,000	Hexachlorobenzene	1
				Hexachlorocyclopentadiene	50
				Lindane	0.2
		Total Trihalomethanes **** (for GW systems >10,000)	100	Methoxychlor	40
Lead & Copper				Oxamyl (Vydate)	200
Lead Action Level	0.015	Total Trihalomethanes **** (for SW systems >10,000)	80	PCBs	0.5
Copper Action Level	1.3			Pentachlorophenol	1
		Haloacetic Acids 5 (for SW systems >10,000)	60	Picloram	500
Radionuclides *	PCi/l			Simazine	4
Gross Alpha	15			Toxaphene	3
Gross Alpha Action Level	5				
Radium-226 Action Level	3				
Radium-226 & Radium-228 (combined)	5				
Manmade	***				

* Community Water Systems Only

** MFL=million fibers/liter > 10 micron

*** The average annual concentration of beta particle and photon radioactivity from manmade radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four (4) millirem per year.

**** The sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform), and trichloromethane (chloroform).